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## INTERNATIONAL PRELIMINARY EXAMINATION REPORT (PCT Article 36 and Rule 70)

Applicant's or agent's file reference	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/EP 03/13329	International filing date (day/month/year) 24.11.2003	Priority date (day/month/year) 05.12.2002
International Patent Classification (IPC) or both national classification and IPC D06M13/192		
Applicant UNILEVER PLC		

1.	This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2.	<p>This REPORT consists of a total of 6 sheets, including this cover sheet.</p> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of    sheets.</p>
3.	<p>This report contains indications relating to the following items:</p> <p>I    <input checked="" type="checkbox"/> Basis of the opinion</p> <p>II   <input type="checkbox"/> Priority</p> <p>III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p>IV <input type="checkbox"/> Lack of unity of invention</p> <p>V   <input checked="" type="checkbox"/> Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p>VI <input type="checkbox"/> Certain documents cited</p> <p>VII <input type="checkbox"/> Certain defects in the international application</p> <p>VIII <input type="checkbox"/> Certain observations on the international application</p>

Date of submission of the demand  07.05.2004	Date of completion of this report  17.03.2005
<p>Name and mailing address of the International preliminary examining authority:</p> <p> European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016</p>	<p>Authorized Officer</p> <p>Fiocco, M</p> <p>Telephone No. +31 70 340-4538</p> <p></p>

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. **PCT/EP 03/13329**

**I. Basis of the report**

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

**Description, Pages**

1-62 as originally filed

**Claims, Numbers**

1-18 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

**INTERNATIONAL PRELIMINARY  
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International application No. **PCT/EP 03/13329**

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**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement**

**1. Statement**

Novelty (N)	Yes: Claims	1-18
	No: Claims	
Inventive step (IS)	Yes: Claims	6,8
	No: Claims	1-5,7,9-18
Industrial applicability (IA)	Yes: Claims	1-18
	No: Claims	

**2. Citations and explanations**

**see separate sheet**

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/EP 03/13329

**Re Item V**

**Reasoned statement with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement**

Reference is made to the following documents:

- D1: WO 98/04772 A (MOONEY WILLIAM; UNILEVER PLC (GB); UNILEVER NV (NL))  
5 February 1998 (1998-02-05)  
D2: US-A-4 780 101 (WATANABE AKIO ET AL) 25 October 1988 (1988-10-25)  
D3: EP-A-0 537 578 (BAYER AG) 21 April 1993 (1993-04-21)

**1) CLAIMS 1-14**

The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 1-5, 7, and 9-14 does not involve an inventive step in the sense of Article 33(3) PCT.

- 1.1) Claim 1: the document **D1** is regarded as being the closest prior art to the subject-matter of claim 1, and discloses (cf. **examples**) a method of treating finished garments comprising cellulosic materials with cross-linking agents (e.g. 1,2,3,4-butanetetracarboxylic acid).

The subject-matter of claim 1 differs from this known method in that the cross-linking agent is blocked and can be thermally activated.

The problem to be solved by the present invention may therefore be regarded as to find a method of cross-linking cellulosic materials wherein the cross-linking agent is activated by the application of heat.

The solution proposed in claim 1 of the present application cannot be considered as involving an inventive step (Article 33(3) PCT) for the following reasons: it is suggested in D1 (cf. **page 4, lines 5-11**) that esters of polycarboxylic acids can be used in the method as an alternative to the acids as such. Moreover, a thermal curing step is used in the method, which would activate the polycarboxylic acid esters.

Furthermore, the subject-matter of claim 1 cannot be considered as involving an inventive step if the document D2 or D3 is assumed to be the closest state of the art.

- 1.2) Dependent claims 2-5, 7, and 9-14 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of inventive step.
- 1.3) Claims 6 and 8: the document D1 is regarded as being the closest prior art to the subject-matter of claims 6 and 8, and shows (cf. **examples**) a method of treating finished garments comprising cellulosic materials with cross-linking agents.

The subject-matter of claims 6 and 8 differs from this known method in that:

- the cross-linking agent is blocked and can be thermally activated; and
- the cross-linking agent is blocked by one of the alcohols and imides recited in claim 6.

The subject-matter of claims 6 and 8 is therefore new (Article 33(2) PCT).

The problem to be solved by the present invention may be regarded as to find an alternative method for treating finished cellulosic garments.

The solution to this problem proposed in claims 6 and 8 of the present application is considered as involving an inventive step (Article 33(3) PCT) for the following reasons: although it is suggested in D1 (cf. **page 4, lines 5-11**) that esters of polycarboxylic acids can be used in the method as an alternative to the acids as such, there is no incentive in D1, nor in the other cited documents, to use the specific esters recited in claim 8 or to use the alcohols recited in claim 6 for the esterification.

## **2) CLAIMS 15-18**

The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 15-18 does not involve an inventive step in the sense of Article 33(3) PCT.

- 2.1) Claim 15: the document **D1** is regarded as being the closest prior art to the subject-matter of claim 15, and discloses (cf. **examples**) a composition comprising a cross-linking agent for cellulosic materials, suitable for use in the present method.

The subject-matter of claim 15 differs from this known composition in that the cross-

linking agent is blocked and can be thermally activated.

The problem to be solved by the present invention may therefore be regarded as to find a composition for cross-linking cellulosic materials, wherein the cross-linking agent is activated by the application of heat.

The solution proposed in claim 15 of the present application cannot be considered as involving an inventive step (Article 33(3) PCT) for the following reasons: it is suggested in D1 (cf. **page 4, lines 5-11**) that esters of polycarboxylic acids can be used in the composition as an alternative to the acids as such. Moreover, a thermal curing step is used in the method, which would activate the polycarboxylic acid esters.

- 2.2) Dependent claims 16-18 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of inventive step.